

**CLAIMS**

1. An aerator for aerating a medium such as soil, said aerator comprising;

5 a plurality of drills, said drills being adapted to cut a hole in said medium;

a plurality of hollow tine tubes arranged such that in use the tubes are in cooperating relationship with a collection box;

10 said tine tubes and said drills being arranged such that the cut medium is moved up the drills, through the hollow tine tubes and into the collection box.

2. An aerator as claimed in claim 1, wherein said drills  
15 comprise a double claw cutting arrangement and a body that is either twisted from a flat form, or otherwise fluted, to form a helical staircase, the drills being designed such that when the drills are rotated a vertical shearing action is produced for removal of the medium.

20 3. An aerator as claimed in any preceding claim, wherein said aerator further comprises a thrower disc attached to said drills, said disc being configured to deflect the upward moving soil particles into said collection box.

25 4. An aerator as claimed in any preceding claim, wherein said hollow tine tubes are configured to control the drill position during linear travel.

30 5. An aerator as claimed in any preceding claim further comprising a push tube having a double tension mechanism; said push tube being configured such that at a first tension both the drill and tine tube are moved to contact the

surface of the medium and enter a short distance and at a second tension the tine tubes stay resting on the surface of said medium and said drills enter said medium.

5 6. An aerator as claimed in any preceding claim, wherein said collection box is removable and comprises a series of holes accommodating said tine tubes.

7. An aerator as claimed in any preceding claim, further  
10 comprising a manual or automatic location device configured to measure the relative location of a footprint for a new set of holes.

8. An aerator substantially as herein described with  
15 reference to Figures 1-9 of the accompanying drawings.